Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
				TOTAL	**72**
				Life Science	**24**
				Physical Setting	**24**
				Scientific Inquiry	**24**
3	Living Environment	3.4.1	3.4.1 Demonstrate that a great variety of living things can be sorted into groups in many ways using various features, such as how they look, where they live, and how they act, to decide which things belong to which group.	Life Science	4
3	Living Environment	3.4.2	3.4.2 Explain that features used for grouping depend on the purpose of the grouping.	Life Science	3
3	Living Environment	3.4.3	3.4.3 Observe that and describe how offspring are very much, but not exactly, like their parents and like one another.	Life Science	2
3	Living Environment	3.4.4	3.4.4 Describe that almost all kinds of animals' food can be traced back to plants.	Life Science	3
3	Living Environment	3.4.5	3.4.5 Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today.	Life Science	3
3	Living Environment	3.4.6	3.4.6 Explain that people need water, food, air, waste removal, and a particular range of temperatures, just as other animals do.	Life Science	3
3	Living Environment	3.4.7	3.4.7 Explain that eating a variety of healthful foods and getting enough exercise and rest help people to stay healthy.	Life Science	0
3	Living Environment	3.4.8	3.4.8 Explain that some things people take into their bodies from the environment can hurt them and give examples of such things.	Life Science	2
3	Living Environment	3.4.9	3.4.9 Explain that some diseases are caused by germs and some are not. Note that diseases caused by germs may be spread to other people. Also understand that hand washing with soap and water reduces the number of germs that can get into the body or that can be passed on to other people.	Life Science	4
3	Physical Setting	3.3.1	3.3.1 Observe and describe the apparent motion of the sun and moon over a time span of one day.	Physical Setting	4
3	Physical Setting	3.3.2	3.3.2 Observe and describe that there are more stars in the sky than anyone can easily count, but they are not scattered evenly.	Physical Setting	0
3	Physical Setting	3.3.3	3.3.3 Observe and describe that the sun can be seen only in the daytime.	Physical Setting	2
3	Physical Setting	3.3.4	3.3.4 Observe and describe that the moon looks a little different every day, but looks the same again about every four weeks.	Physical Setting	3
3	Physical Setting	3.3.5	3.3.5 Give examples of how change, such as weather patterns, is a continual process occurring on Earth.	Physical Setting	4
3	Physical Setting	3.3.6	3.3.6 Describe ways human beings protect themselves from adverse weather conditions.	Physical Setting	5
3	Physical Setting	3.3.7	3.3.7 Identify and explain some effects human activities have on weather.	Physical Setting	0
3	Physical Setting	3.3.8	3.3.8 Investigate and describe how moving air and water can be used to run machines, like windmills and waterwheels.	Physical Setting	3
3	Physical Setting	3.3.9	3.3.9 Demonstrate that things that make sound do so by vibrating, such as vocal cords and musical instruments.	Physical Setting	3
3	Nature of Science and Technology	3.1.1	3.1.1 Recognize and explain that when a scientific investigation is repeated, a similar result is expected.	Scientific Inquiry	1
3	Nature of Science and Technology	3.1.2	3.1.2 Participate in different types of guided scientific investigations such as observing objects and events and collecting specimens for analysis.	Scientific Inquiry	0
3	Nature of Science and Technology	3.1.3	3.1.3 Keep and report records of investigations and observations using tools such as journals, charts, graphs, and computers.	Scientific Inquiry	0
3	Nature of Science and Technology	3.1.4	3.1.4 Discuss the results of investigations and consider the explanations of others.	Scientific Inquiry	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
3	Nature of Science and Technology	3.1.5	3.1.5 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.	Scientific Inquiry	0
3	Nature of Science and Technology	3.1.6	3.1.6 Give examples of how tools, such as automobiles, computers, and electric motors, have affected the way we live.	Scientific Inquiry	2
3	Nature of Science and Technology	3.1.7	3.1.7 Recognize that and explain how an invention can be used in different ways, such as a radio being used to get information and for entertainment.	Scientific Inquiry	1
3	Nature of Science and Technology	3.1.8	3.1.8 Describe how discarded products contribute to the problem of waste disposal and that recycling can help solve this problem.	Scientific Inquiry	2
3	Scientific Thinking	3.2.1	3.2.1 Add and subtract whole numbers mentally, on paper, and with a calculator.	Scientific Inquiry	0
3	Scientific Thinking	3.2.2	3.2.2 Measure and mix dry and liquid materials in prescribed amounts, following reasonable safety precautions.	Scientific Inquiry	0
3	Scientific Thinking	3.2.3	3.2.3 Keep a notebook that describes observations and is understandable weeks or months later.	Scientific Inquiry	1
3	Scientific Thinking	3.2.4	3.2.4 Appropriately use simple tools, such as clamps, rulers, scissors, hand lenses, and other technology, such as calculators and computers, to help solve problems.	Scientific Inquiry	0
3	Scientific Thinking	3.2.5	3.2.5 Construct something used for performing a task out of paper, cardboard, wood, plastic, metal, or existing objects.	Scientific Inquiry	0
3	Scientific Thinking	3.2.6	3.2.6 Make sketches and write descriptions to aid in explaining procedures or ideas.	Scientific Inquiry	0
3	Scientific Thinking	3.2.7	3.2.7 Ask "How do you know?" in appropriate situations and attempt reasonable answers when others ask the same question.	Scientific Inquiry	1
3	Mathematical World	3.5.1	3.5.1 Select and use appropriate measuring units, such as centimeters (cm) and meters (m), grams (g) and kilograms (kg), and degrees Celsius (°C).	Scientific Inquiry	3
3	Mathematical World	3.5.2	3.5.2 Observe that and describe how some measurements are likely to be slightly different, even if what is being measured stays the same.	Scientific Inquiry	1
3	Mathematical World	3.5.3	3.5.3 Construct tables and graphs to show how values of one quantity are related to values of another.	Scientific Inquiry	4
3	Mathematical World	3.5.4	3.5.4 Illustrate that if 0 and 1 are located on a line, any other number can be depicted as a position on the line.	Scientific Inquiry	0
3	Mathematical World	3.5.5	3.5.5 Explain that one way to make sense of something is to think of how it relates to something more familiar.	Scientific Inquiry	1
3	Common Themes	3.6.1	3.6.1 Investigate how and describe that when parts are put together, they can do things that they could not do by themselves.	Scientific Inquiry	1
3	Common Themes	3.6.2	3.6.2 Investigate how and describe that something may not work if some of its parts are missing.	Scientific Inquiry	1
3	Common Themes	3.6.3	3.6.3 Explain how a model of something is different from the real thing but can be used to learn something about the real thing.	Scientific Inquiry	2
3	Common Themes	3.6.4	3.6.4 Take, record, and display counts and simple measurements of things over time, such as plant or student growth.	Scientific Inquiry	1
3	Common Themes	3.6.5	3.6.5 Observe that and describe how some changes are very slow and some are very fast and that some of these changes may be hard to see and/or record.	Scientific Inquiry	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
				TOTAL	**72**
				Life Science	**24**
				Physical Setting	**24**
				Scientific Inquiry	**24**
4	Living Environment	4.4.1	4.4.1 Investigate, such as by using microscopes, to see that living things are made mostly of cells.	Life Science	2
4	Living Environment	4.4.2	4.4.2 Investigate, observe, and describe that insects and various other organisms depend on dead plant and animal material for food.	Life Science	3
4	Living Environment	4.4.3	4.4.3 Observe and describe that organisms interact with one another in various ways, such as providing food, pollination, and seed dispersal.	Life Science	3
4	Living Environment	4.4.4	4.4.4 Observe and describe that some source of energy is needed for all organisms to stay alive and grow.	Life Science	2
4	Living Environment	4.4.5	4.4.5 Observe and explain that most plants produce far more seeds than those that actually grow into new plants.	Life Science	2
4	Living Environment	4.4.6	4.4.6 Explain how in all environments, organisms are growing, dying, and decaying, and new organisms are being produced by the old ones.	Life Science	3
4	Living Environment	4.4.7	4.4.7 Describe that human beings have made tools and machines, such as x-rays, microscopes, and computers, to sense and do things that they could not otherwise sense or do at all, or as quickly, or as well.	Life Science	0
4	Living Environment	4.4.8	4.4.8 Know and explain that artifacts and preserved remains provide some evidence of the physical characteristics and possible behavior of human beings who lived a very long time ago.	Life Science	0
4	Living Environment	4.4.9	4.4.9 Explain that food provides energy and materials for growth and repair of body parts. Recognize that vitamins and minerals, present in small amounts in foods, are essential to keep everything working well. Further understand that as people grow up, the amounts and kinds of food and exercise needed by the body may change.	Life Science	3
4	Living Environment	4.4.10	4.4.10 Explain that if germs are able to get inside the body, they may keep it from working properly. Understand that for defense against germs, the human body has tears, saliva, skin, some blood cells, and stomach secretions. Also note that a healthy body can fight most germs that invade it. Recognize, however, that there are some germs that interfere with the body's defenses.	Life Science	3
4	Living Environment	4.4.11	4.4.11 Explain that there are some diseases that human beings can only catch once. Explain that there are many diseases that can be prevented by vaccinations, so that people do not catch them even once.	Life Science	3
4	Physical Setting	4.3.1	4.3.1 Observe and report that the moon can be seen sometimes at night and sometimes during the day.	Physical Setting	1
4	Physical Setting	4.3.2	4.3.2 Begin to investigate and explain that air is a substance that surrounds us, takes up space, and whose movements we feel as wind.	Physical Setting	2
4	Physical Setting	4.3.3	4.3.3 Identify salt as the major difference between fresh and ocean waters.	Physical Setting	1
4	Physical Setting	4.3.4	4.3.4 Describe some of the effects of oceans on climate.	Physical Setting	0
4	Physical Setting	4.3.5	4.3.5 Describe how waves, wind, water, and ice, such as glaciers, shape and reshape the Earth's land surface by eroding of rock and soil in some areas and depositing them in other areas.	Physical Setting	3
4	Physical Setting	4.3.6	4.3.6 Recognize and describe that rock is composed of different combinations of minerals.	Physical Setting	1
4	Physical Setting	4.3.7	4.3.7 Explain that smaller rocks come from the breakage and weathering of bedrock and larger rocks and that soil is made partly from weathered rock, partly from plant remains, and also contains many living organisms.	Physical Setting	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
4	Physical Setting	4.3.8	4.3.8 Explain that the rotation of the Earth on its axis every 24 hours produces the night-and-day cycle.	Physical Setting	3
4	Physical Setting	4.3.9	4.3.9 Draw or correctly select drawings of shadows and their direction and length at different times of day.	Physical Setting	2
4	Physical Setting	4.3.10	4.3.10 Demonstrate that the mass of a whole object is always the same as the sum of the masses of its parts.	Physical Setting	1
4	Physical Setting	4.3.11	4.3.11 Investigate and observe and explain that things that give off light often also give off heat.	Physical Setting	1
4	Physical Setting	4.3.12	4.3.12 Investigate, observe, and explain that heat is produced when one object rubs against another, such as one's hands rubbing together.	Physical Setting	1
4	Physical Setting	4.3.13	4.3.13 Observe and describe the things that give off heat, such as people, animals, and the sun.	Physical Setting	1
4	Physical Setting	4.3.14	4.3.14 Explain that energy in fossil fuels comes from plants that grew long ago.	Physical Setting	1
4	Physical Setting	4.3.15	4.3.15 Demonstrate that without touching them, a magnet pulls all things made of iron and either pushes or pulls other magnets.	Physical Setting	2
4	Physical Setting	4.3.16	4.3.16 Investigate and describe that without touching them, material that has been electrically charged pulls all other materials and may either push or pull other charged material.	Physical Setting	2
4	Nature of Science and Technology	4.1.1	4.1.1 Observe and describe that scientific investigations generally work the same way in different places.	Scientific Inquiry	1
4	Nature of Science and Technology	4.1.2	4.1.2 Recognize and describe that results of scientific investigations are seldom exactly the same. If differences occur, such as a large variation in the measurement of plant growth, propose reasons for why these differences exist, using recorded information about investigations.	Scientific Inquiry	2
4	Nature of Science and Technology	4.1.3	4.1.3 Explain that clear communication is an essential part of doing science since it enables scientists to inform others about their work, to expose their ideas to evaluation by other scientists, and to allow scientists to stay informed about scientific discoveries around the world.	Scientific Inquiry	1
4	Nature of Science and Technology	4.1.4	4.1.4 Describe how people all over the world have taken part in scientific investigation for many centuries.	Scientific Inquiry	1
4	Nature of Science and Technology	4.1.5	4.1.5 Demonstrate how measuring instruments, such as microscopes, telescopes, and cameras, can be used to gather accurate information for making scientific comparisons of objects and events. Note that measuring instruments, such as rulers, can also be used for designing and constructing things that will work properly.	Scientific Inquiry	2
4	Nature of Science and Technology	4.1.6	4.1.6 Explain that even a good design may fail even though steps are taken ahead of time to reduce the likelihood of failure.	Scientific Inquiry	0
4	Nature of Science and Technology	4.1.7	4.1.7 Discuss and give examples of how technology, such as computers and medicines, has improved the lives of many people, although the benefits are not equally available to all.	Scientific Inquiry	1
4	Nature of Science and Technology	4.1.8	4.1.8 Recognize and explain that any invention may lead to other inventions.	Scientific Inquiry	1
4	Nature of Science and Technology	4.1.9	4.1.9 Explain how some products and materials are easier to recycle than others.	Scientific Inquiry	0
4	Scientific Thinking	4.2.1	4.2.1 Judge whether measurements and computations of quantities, such as length, area, volume, weight, or time, are reasonable.	Scientific Inquiry	2
4	Scientific Thinking	4.2.2	4.2.2 State the purpose, orally or in writing, of each step in a computation.	Scientific Inquiry	0
4	Scientific Thinking	4.2.3	4.2.3 Make simple and safe electrical connections with various plugs, sockets, and terminals.	Scientific Inquiry	0
4	Scientific Thinking	4.2.4	4.2.4 Use numerical data to describe and compare objects and events.	Scientific Inquiry	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
4	Scientific Thinking	4.2.5	4.2.5 Write descriptions of investigations, using observations and other evidence as support for explanations.	Scientific Inquiry	2
4	Scientific Thinking	4.2.6	4.2.6 Support statements with facts found in print and electronic media, identify the sources used, and expect others to do the same.	Scientific Inquiry	1
4	Scientific Thinking	4.2.7	4.2.7 Identify better reasons for believing something than “Everybody knows that...” or “I just know” and discount such reasons when given by others.	Scientific Inquiry	1
4	Mathematical World	4.5.1	4.5.1 Explain that the meaning of numerals in many-digit numbers depends on their positions.	Scientific Inquiry	0
4	Mathematical World	4.5.2	4.5.2 Explain that in some situations, “0" means none of something, but in others it may be just the label of some point on a scale.	Scientific Inquiry	0
4	Mathematical World	4.5.3	4.5.3 Illustrate how length can be thought of as unit lengths joined together, area as a collection of unit squares, and volume as a set of unit cubes.	Scientific Inquiry	0
4	Mathematical World	4.5.4	4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.	Scientific Inquiry	2
4	Mathematical World	4.5.5	4.5.5 Explain how reasoning can be distorted by strong feelings.	Scientific Inquiry	0
4	Common Themes	4.6.1	4.6.1 Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.	Scientific Inquiry	1
4	Common Themes	4.6.2	4.6.2 Show that something may not work as well, or at all, if a part of it is missing, broken, worn out, mismatched, or incorrectly connected.	Scientific Inquiry	1
4	Common Themes	4.6.3	4.6.3 Recognize that and describe how changes made to a model can help predict how the real thing can be altered.	Scientific Inquiry	1
4	Common Themes	4.6.4	4.6.4 Observe and describe that some features of things may stay the same even when other features change.	Scientific Inquiry	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
				TOTAL	**72**
				Life Science	**24**
				Physical Setting	**24**
				Scientific Inquiry	**24**
5	Living Environment	5.4.1	5.4.1 Explain that for offspring to resemble their parents there must be a reliable way to transfer information from one generation to the next.	Life Science	1
5	Living Environment	5.4.2	5.4.2 Observe and describe that some living things consist of a single cell that needs food, water, air, a way to dispose of waste, and an environment in which to live.	Life Science	2
5	Living Environment	5.4.3	5.4.3 Observe and explain that some organisms are made of a collection of similar cells that benefit from cooperating. Explain that some organisms' cells, such as human nerve cells and muscle cells, vary greatly in appearance and perform very different roles in the organism.	Life Science	3
5	Living Environment	5.4.4	5.4.4 Explain that in any particular environment, some kinds of plants and animals survive well, some do not survive as well, and some cannot survive at all.	Life Science	3
5	Living Environment	5.4.5	5.4.5 Explain how changes in an organism's habitat are sometimes beneficial and sometimes harmful.	Life Science	3
5	Living Environment	5.4.6	5.4.6 Recognize and explain that most microorganisms do not cause disease and many are beneficial.	Life Science	2
5	Living Environment	5.4.7	5.4.7 Explain that living things, such as plants and animals, differ in their characteristics, and that sometimes these differences can give members of these groups (plants and animals) an advantage in surviving and reproducing.	Life Science	4
5	Living Environment	5.4.8	5.4.8 Observe that and describe how fossils can be compared to one another and to living organisms according to their similarities and differences.	Life Science	3
5	Living Environment	5.4.9	5.4.9 Explain that like other animals, human beings have body systems.	Life Science	3
5	Physical Setting	5.3.1	5.3.1 Explain that telescopes are used to magnify distant objects in the sky including the moon and the planets.	Physical Setting	1
5	Physical Setting	5.3.2	5.3.2 Observe and describe that stars are like the sun, some being smaller and some being larger, but they are so far away that they look like points of light.	Physical Setting	2
5	Physical Setting	5.3.3	5.3.3 Observe the stars and identify stars that are unusually bright and those that have unusual colors, such as reddish or bluish.	Physical Setting	0
5	Physical Setting	5.3.4	5.3.4 Investigate that when liquid water disappears it turns into a gas (vapor) mixed into the air and can reappear as a liquid when cooled or as a solid if cooled below the freezing point of water.	Physical Setting	3
5	Physical Setting	5.3.5	5.3.5 Observe and explain that clouds and fog are made of tiny droplets of water.	Physical Setting	1
5	Physical Setting	5.3.6	5.3.6 Demonstrate that things on or near the Earth are pulled toward it by the Earth's gravity.	Physical Setting	1
5	Physical Setting	5.3.7	5.3.7 Describe that, like all planets and stars, the Earth is approximately spherical in shape.	Physical Setting	1
5	Physical Setting	5.3.8	5.3.8 Investigate, observe, and describe that heating and cooling cause changes in the properties of materials, such as water turning into steam by boiling and water turning into ice by freezing. Notice that many kinds of changes occur faster at higher temperatures.	Physical Setting	2
5	Physical Setting	5.3.9	5.3.9 Investigate, observe, and describe that when warmer things are put with cooler ones, the warm ones lose heat and the cool ones gain it until they are all at the same temperature. Demonstrate that a warmer object can warm a cooler one by contact or at a distance.	Physical Setting	3
5	Physical Setting	5.3.10	5.3.10 Investigate that some materials conduct heat much better than others, and poor conductors can reduce heat loss.	Physical Setting	3

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
5	Physical Setting	5.3.11	5.3.11 Investigate and describe that changes in speed or direction of motion of an object are caused by forces. Understand that the greater the force, the greater the change in motion and the more massive an object, the less effect a given force will have.	Physical Setting	4
5	Physical Setting	5.3.12	5.3.12 Explain that objects move at different rates, with some moving very slowly and some moving too quickly for people to see them.	Physical Setting	2
5	Physical Setting	5.3.13	5.3.13 Demonstrate that the Earth's gravity pulls any object toward it without touching it.	Physical Setting	1
5	Nature of Science and Technology	5.1.1	5.1.1 Recognize and describe that results of similar scientific investigations may turn out differently because of inconsistencies in methods, materials, and observations.	Scientific Inquiry	2
5	Nature of Science and Technology	5.1.2	5.1.2 Begin to evaluate the validity of claims based on the amount and quality of the evidence cited.	Scientific Inquiry	2
5	Nature of Science and Technology	5.1.3	5.1.3 Explain that doing science involves many different kinds of work and engages men, women, and children of all ages and backgrounds.	Scientific Inquiry	1
5	Nature of Science and Technology	5.1.4	5.1.4 Give examples of technology, such as telescopes, microscopes, and cameras, that enable scientists and others to observe things that are too small or too far away to be seen without them and to study the motion of objects that are moving very rapidly or are hardly moving.	Scientific Inquiry	2
5	Nature of Science and Technology	5.1.5	5.1.5 Explain that technology extends the ability of people to make positive and/or negative changes in the world.	Scientific Inquiry	1
5	Nature of Science and Technology	5.1.6	5.1.6 Explain how the solution to one problem, such as the use of pesticides in agriculture or the use of dumps for waste disposal, may create other problems.	Scientific Inquiry	1
5	Nature of Science and Technology	5.1.7	5.1.7 Give examples of materials not present in nature, such as cloth, plastic, and concrete, that have become available because of science and technology.	Scientific Inquiry	1
5	Scientific Thinking	5.2.1	5.2.1 Multiply and divide whole numbers mentally, on paper, and with a calculator.	Scientific Inquiry	0
5	Scientific Thinking	5.2.2	5.2.2 Use appropriate fractions and decimals when solving problems.	Scientific Inquiry	0
5	Scientific Thinking	5.2.3	5.2.3 Choose appropriate common materials for making simple mechanical constructions and repairing things.	Scientific Inquiry	0
5	Scientific Thinking	5.2.4	5.2.4 Keep a notebook to record observations and be able to distinguish inferences from actual observations.	Scientific Inquiry	1
5	Scientific Thinking	5.2.5	5.2.5 Use technology, such as calculators or spreadsheets, in determining area and volume from linear dimensions. Find area, volume, mass, time, and cost, and find the difference between two quantities of anything.	Scientific Inquiry	0
5	Scientific Thinking	5.2.6	5.2.6 Write instructions that others can follow in carrying out a procedure.	Scientific Inquiry	2
5	Scientific Thinking	5.2.7	5.2.7 Read and follow step-by-step instructions when learning new procedures.	Scientific Inquiry	0
5	Scientific Thinking	5.2.8	5.2.8 Recognize when and describe that comparisons might not be accurate because some of the conditions are not kept the same.	Scientific Inquiry	2
5	Mathematical World	5.5.1	5.5.1 Make precise and varied measurements and specify the appropriate units.	Scientific Inquiry	2
5	Mathematical World	5.5.2	5.5.2 Show that mathematical statements using symbols may be true only when the symbols are replaced by certain numbers.	Scientific Inquiry	0
5	Mathematical World	5.5.3	5.5.3 Classify objects in terms of simple figures and solids.	Scientific Inquiry	0
5	Mathematical World	5.5.4	5.5.4 Compare shapes in terms of concepts, such as parallel and perpendicular, congruence and symmetry.	Scientific Inquiry	0
5	Mathematical World	5.5.5	5.5.5 Demonstrate that areas of irregular shapes can be found by dividing them into squares and triangles.	Scientific Inquiry	0
5	Mathematical World	5.5.6	5.5.6 Describe and use drawings to show shapes and compare locations of things very different in size.	Scientific Inquiry	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
5	Mathematical World	5.5.7	5.5.7 Explain that predictions can be based on what is known about the past, assuming that conditions are similar.	Scientific Inquiry	1
5	Mathematical World	5.5.8	5.5.8 Realize and explain that predictions may be more accurate if they are based on large collections of objects or events.	Scientific Inquiry	1
5	Mathematical World	5.5.9	5.5.9 Show how spreading data out on a number line helps to see what the extremes are, where they pile up, and where the gaps are.	Scientific Inquiry	0
5	Mathematical World	5.5.10	5.5.10 Explain the danger in using only a portion of the data collected to describe the whole.	Scientific Inquiry	1
5	Common Themes	5.6.1	5.6.1 Recognize and describe that systems contain objects as well as processes that interact with each other.	Scientific Inquiry	1
5	Common Themes	5.6.2	5.6.2 Demonstrate how geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories can be used to represent objects, events, and processes in the real world, although such representation can never be exact in every detail.	Scientific Inquiry	1
5	Common Themes	5.6.3	5.6.3 Recognize and describe that almost anything has limits on how big or small it can be.	Scientific Inquiry	0
5	Common Themes	5.6.4	5.6.4 Investigate, observe, and describe that things change in steady, repetitive, or irregular ways, such as toy cars continuing in the same direction and air temperature reaching a high or low value. Note that the best way to tell which kinds of change are happening is to make a table or a graph of measurements.	Scientific Inquiry	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
				TOTAL	**112**
				Life Science	**28**
				Earth Science	**28**
				Physical Science	**28**
				Scientific Inquiry	**28**
6	Living Environment	6.4.1	6.4.1 Explain that one of the most general distinctions among organisms is between green plants, which use sunlight to make their own food, and animals, which consume energy-rich foods.	Life Science	2
6	Living Environment	6.4.2	6.4.2 Give examples of organisms that cannot be neatly classified as either plants or animals, such as fungi and bacteria.	Life Science	2
6	Living Environment	6.4.3	6.4.3 Describe some of the great variety of body plans and internal structures animals and plants have that contribute to their being able to make or find food and reproduce.	Life Science	4
6	Living Environment	6.4.4	6.4.4 Recognize and describe that a species comprises all organisms that can mate with one another to produce fertile offspring.	Life Science	2
6	Living Environment	6.4.5	6.4.5 Investigate and explain that all living things are composed of cells whose details are usually visible only through a microscope.	Life Science	1
6	Living Environment	6.4.6	6.4.6 Distinguish the main differences between plant and animal cells, such as the presence of chlorophyll and cell walls in plant cells and their absence in animal cells.	Life Science	2
6	Living Environment	6.4.7	6.4.7 Explain that about two thirds of the mass of a cell is accounted for by water. Water gives cells many of their properties.	Life Science	1
6	Living Environment	6.4.8	6.4.8 Explain that in all environments, such as freshwater, marine, forest, desert, grassland, mountain, and others, organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter. In any environment, the growth and survival of organisms depend on the physical conditions.	Life Science	3
6	Living Environment	6.4.9	6.4.9 Recognize and explain that two types of organisms may interact in a competitive or cooperative relationship, such as producer/consumer, predator/prey, or parasite/host.	Life Science	3
6	Living Environment	6.4.10	6.4.10 Describe how life on Earth depends on energy from the sun.	Life Science	2
6	Living Environment	6.4.11	6.4.11 Describe that human beings have body systems for obtaining and providing energy, defense, reproduction, and the coordination of body functions.	Life Science	3
6	Living Environment	6.4.12	6.4.12 Explain that human beings have many similarities and differences and that the similarities make it possible for human beings to reproduce and to donate blood and organs to one another.	Life Science	1
6	Living Environment	6.4.13	6.4.13 Give examples of how human beings use technology to match or exceed many of the abilities of other species.	Life Science	2
6	Physical Setting	6.3.1	6.3.1 Compare and contrast the size, composition, and surface features of the planets that comprise the solar system, as well as the objects orbiting them. Explain that the planets, except Pluto, move around the sun in nearly circular orbits.	Earth Science	3
6	Physical Setting	6.3.2	6.3.2 Observe and describe that planets change their position relative to the background of stars.	Earth Science	1
6	Physical Setting	6.3.3	6.3.3 Explain that the Earth is one of several planets that orbit the sun, and that the moon, as well as many artificial satellites and debris, orbit around the Earth.	Earth Science	1
6	Physical Setting	6.3.4	6.3.4 Explain that we live on a planet which appears at present to be the only body in the solar system capable of supporting life.	Earth Science	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
6	Physical Setting	6.3.5	6.3.5 Use models or drawings to explain that the Earth has different seasons and weather patterns because it turns daily on an axis that is tilted relative to the plane of the Earth's yearly orbit around the sun. Know that because of this, sunlight falls more intensely on different parts of the Earth during the year (the accompanying greater length of days also has an effect) and the difference in heating produces seasons and weather patterns.	Earth Science	3
6	Physical Setting	6.3.6	6.3.6 Use models or drawings to explain that the phases of the moon are caused by the moon's orbit around the Earth, once in about 28 days, changing what part of the moon is lighted by the sun and how much of that part can be seen from the Earth, both during the day and night.	Earth Science	3
6	Physical Setting	6.3.7	6.3.7 Understand and describe the scales involved in characterizing the Earth and its atmosphere. Describe that the Earth is mostly rock, that three-fourths of its surface is covered by a relatively thin layer of water, and that the entire planet is surrounded by a relatively thin blanket of air.	Earth Science	2
6	Physical Setting	6.3.8	6.3.8 Explain that fresh water, limited in supply and uneven in distribution, is essential for life and also for most industrial processes. Understand that this resource can be depleted or polluted, making it unavailable or unsuitable for life.	Earth Science	2
6	Physical Setting	6.3.9	6.3.9 Illustrate that the cycling of water in and out of the atmosphere plays an important role in determining climatic patterns.	Earth Science	3
6	Physical Setting	6.3.10	6.3.10 Describe the motions of ocean waters, such as tides, and identify their causes.	Earth Science	2
6	Physical Setting	6.3.11	6.3.11 Identify and explain the effects of oceans on climate.	Earth Science	2
6	Physical Setting	6.3.12	6.3.12 Describe ways human beings protect themselves from adverse weather conditions.	Earth Science	0
6	Physical Setting	6.3.13	6.3.13 Identify, explain, and discuss some effects human activities, such as the creation of pollution, have on weather and the atmosphere.	Earth Science	2
6	Physical Setting	6.3.14	6.3.14 Give examples of some minerals that are very rare and some that exist in great quantities. Explain how recycling and the development of substitutes can reduce the rate of depletion of minerals.	Earth Science	1
6	Physical Setting	6.3.15	6.3.15 Explain that although weathered rock is the basic component of soil, the composition and texture of soil and its fertility and resistance to erosion are greatly influenced by plant roots and debris, bacteria, fungi, worms, insects, and other organisms.	Earth Science	1
6	Physical Setting	6.3.16	6.3.16 Explain that human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and intensive farming, have changed the capacity of the environment to support some life forms.	Earth Science	2
6	Physical Setting	6.3.17	6.3.17 Recognize and describe that energy is a property of many objects and is associated with heat, light, electricity, mechanical motion and sound.	Physical Science	5
6	Physical Setting	6.3.18	6.3.18 Investigate and describe that when a new material, such as concrete, is made by combining two or more materials, it has properties that are different from the original materials.	Physical Science	4
6	Physical Setting	6.3.19	6.3.19 Investigate that materials may be composed of parts that are too small to be seen without magnification.	Physical Science	2
6	Physical Setting	6.3.20	6.3.20 Investigate that equal volumes of different substances usually have different masses as well as different densities.	Physical Science	4

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
6	Physical Setting	6.3.21	6.3.21 Investigate, using a prism for example, that light is made up of a mixture of many different colors of light, even though the light is perceived as almost white.	Physical Science	4
6	Physical Setting	6.3.22	6.3.22 Demonstrate that vibrations in materials set up wavelike disturbances that spread away from the source such as sound and earthquake waves.	Physical Science	4
6	Physical Setting	6.3.23	6.3.23 Explain that electrical circuits provide a means of transferring electrical energy from sources such as generators to devices in which heat, light, sound, and chemical changes are produced.	Physical Science	5
6	Historical Perspectives	6.6.1	6.6.1 Understand and explain that from the earliest times until now, people have believed that even though countless different kinds of materials seem to exist in the world, most things can be made up of combinations of just a few basic kinds of things. Note that there has not always been agreement, however, on what those basic kinds of things are, such as the theory of long ago that the basic substances were earth, water, air, and fire. Understand that this theory seemed to explain many observations about the world, but as we know now, it fails to explain many others.	Physical Science	0
6	Historical Perspectives	6.6.2	6.6.2 Understand and describe that scientists are still working out the details of what the basic kinds of matter are on the smallest scale, and of how they combine, or can be made to combine, to make other substances.	Physical Science	0
6	Historical Perspectives	6.6.3	6.6.3 Understand and explain that the experimental and theoretical work done by French scientist Antoine Lavoisier in the decade between the American and French Revolutions contributed crucially to the modern science of chemistry.	Physical Science	0
6	Nature of Science and Technology	6.1.1	6.1.1 Explain that some scientific knowledge, such as the length of the year, is very old and yet is still applicable today. Understand, however, that scientific knowledge is never exempt from review and criticism.	Scientific Inquiry	2
6	Nature of Science and Technology	6.1.2	6.1.2 Give examples of different ways scientists investigate natural phenomena and identify processes all scientists use, such as collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations in order to make sense of the evidence.	Scientific Inquiry	2
6	Nature of Science and Technology	6.1.3	6.1.3 Recognize and explain that hypotheses are valuable, even if they turn out not to be true, if they lead to fruitful investigations.	Scientific Inquiry	1
6	Nature of Science and Technology	6.1.4	6.1.4 Give examples of employers who hire scientists, such as colleges and universities, businesses and industries, hospitals and many government agencies.	Scientific Inquiry	0
6	Nature of Science and Technology	6.1.5	6.1.5 Identify places where scientists work including offices, classrooms, laboratories, farms, factories, and natural field settings ranging from space to the ocean floor.	Scientific Inquiry	0
6	Nature of Science and Technology	6.1.6	6.1.6 Explain that computers have become invaluable in science because they speed up and extend people's ability to collect, store, compile, and analyze data, prepare research reports, and share data and ideas with investigators all over the world.	Scientific Inquiry	1
6	Nature of Science and Technology	6.1.7	6.1.7 Explain that technology is essential to science for such purposes as access to outer space and other remote locations, sample collection and treatment, measurement, data collection and storage, computation, and communication of information.	Scientific Inquiry	1
6	Nature of Science and Technology	6.1.8	6.1.8 Describe instances showing that technology cannot always provide successful solutions for problems or fulfill every human need.	Scientific Inquiry	1
6	Nature of Science and Technology	6.1.9	6.1.9 Explain how technologies can influence all living things.	Scientific Inquiry	1

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
6	Scientific Thinking	6.2.1	6.2.1 Find the mean and median of a set of data.	Scientific Inquiry	2
6	Scientific Thinking	6.2.2	6.2.2 Use technology, such as calculators or computer spreadsheets, in analysis of data.	Scientific Inquiry	0
6	Scientific Thinking	6.2.3	6.2.3 Select tools such as cameras and tape recorders for capturing information.	Scientific Inquiry	0
6	Scientific Thinking	6.2.4	6.2.4 Inspect, disassemble, and reassemble simple mechanical devices and describe what the various parts are for. Estimate what the effect of making a change in one part of a system is likely to have on the system as a whole.	Scientific Inquiry	0
6	Scientific Thinking	6.2.5	6.2.5 Organize information in simple tables and graphs and identify relationships they reveal. Use tables and graphs as examples of evidence for explanations when writing essays or writing about lab work, fieldwork, etc.	Scientific Inquiry	2
6	Scientific Thinking	6.2.6	6.2.6 Read simple tables and graphs produced by others and describe in words what they show.	Scientific Inquiry	2
6	Scientific Thinking	6.2.7	6.2.7 Locate information in reference books, back issues of newspapers and magazines, compact disks, and computer databases.	Scientific Inquiry	0
6	Scientific Thinking	6.2.8	6.2.8 Analyze and interpret a given set of findings, demonstrating that there may be more than one good way to do so.	Scientific Inquiry	2
6	Scientific Thinking	6.2.9	6.2.9 Compare consumer products, such as generic and brand-name products, and consider reasonable personal trade-offs among them on the basis of features, performance, durability, and costs.	Scientific Inquiry	0
6	Mathematical World	6.5.1	6.5.1 Demonstrate that the operations additional and subtraction are inverses and that multiplication and division are inverses of each other.	Scientific Inquiry	0
6	Mathematical World	6.5.2	6.5.2 Evaluate the precision and usefulness of data based on measurements taken.	Scientific Inquiry	1
6	Mathematical World	6.5.3	6.5.3 Explain why shapes on a sphere like the Earth cannot be depicted on a flat surface without some distortion.	Scientific Inquiry	0
6	Mathematical World	6.5.4	6.5.4 Demonstrate how graphs may help to show patterns, such as trends, varying rates of change, gaps, or clusters, which can be used to make predictions.	Scientific Inquiry	2
6	Mathematical World	6.5.5	6.5.5 Explain the strengths and weaknesses of using an analogy to help describe an event, object, etc.	Scientific Inquiry	1
6	Mathematical World	6.5.6	6.5.6 Predict the frequency of the occurrence of future events based on data.	Scientific Inquiry	2
6	Mathematical World	6.5.7	6.5.7 Demonstrate how probabilities and ratios can be expressed as fractions, percentages, or odds.	Scientific Inquiry	0
6	Common Themes	6.7.1	6.7.1 Describe that a system, such as the human body, is composed of subsystems.	Scientific Inquiry	1
6	Common Themes	6.7.2	6.7.2 Use models to illustrate processes that happen too slowly, too quickly, or on too small a scale to observe directly, or are too vast to be changed deliberately, or are potentially dangerous.	Scientific Inquiry	2
6	Common Themes	6.7.3	6.7.3 Identify examples of feedback mechanisms within systems that serve to keep changes within specified limits.	Scientific Inquiry	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
				TOTAL	**112**
				Life Science	**28**
				Earth Science	**28**
				Physical Science	**28**
				Scientific Inquiry	**28**
7	Living Environment	7.4.1	7.4.1 Explain that similarities among organisms are found in external and internal anatomical features, including specific characteristics at the cellular level, such as the number of chromosomes. Understand that these similarities are used to classify organisms since they may be used to infer the degree of relatedness among organisms.	Life Science	2
7	Living Environment	7.4.2	7.4.2 Describe that all organisms, including the human species, are part of and depend on two main interconnected global food webs, the ocean food web and the land food web.	Life Science	4
7	Living Environment	7.4.3	7.4.3 Explain how in sexual reproduction, a single specialized cell from a female merges with a specialized cell from a male and this fertilized egg carries genetic information from each parent and multiplies to form the complete organism.	Life Science	2
7	Living Environment	7.4.4	7.4.4 Explain that cells continually divide to make more cells for growth and repair and that various organs and tissues function to serve the needs of cells for food, air, and waste removal.	Life Science	2
7	Living Environment	7.4.5	7.4.5 Explain that the basic functions of organisms, such as extracting energy from food and getting rid of wastes, are carried out within the cell and understand that the way which cells function is similar in all organisms.	Life Science	2
7	Living Environment	7.4.6	7.4.6 Explain how food provides the fuel and the building material for all organisms.	Life Science	0
7	Living Environment	7.4.7	7.4.7 Describe how plants use the energy from light to make sugars from carbon dioxide and water to produce food that can be used immediately or stored for later use.	Life Science	2
7	Living Environment	7.4.8	7.4.8 Describe how organisms that eat plants break down the plant structures to produce the materials and energy that they need to survive, and in turn, how they are consumed by other organisms.	Life Science	2
7	Living Environment	7.4.9	7.4.9 Understand and explain that as any population of organisms grows, it is held in check by one or more environmental factors. These factors could result in depletion of food or nesting sites and/or increase loss to increased numbers of predators or parasites. Give examples of some consequences of this.	Life Science	2
7	Living Environment	7.4.10	7.4.10 Describe how technologies having to do with food production, sanitation, and disease prevention have dramatically changed how people live and work and have resulted in changes in factors that affect the growth of human population.	Life Science	1
7	Living Environment	7.4.11	7.4.11 Explain that the amount of food energy (calories) a person requires varies with body weight, age, sex, activity level, and natural body efficiency. Understand that regular exercise is important to maintain a healthy heart/lung system, good muscle tone, and strong bone structure.	Life Science	2
7	Living Environment	7.4.12	7.4.12 Explain that viruses, bacteria, fungi, and parasites may infect the human body and interfere with normal body functions. Recognize that a person can catch a cold many times because there are many varieties of cold viruses that cause similar symptoms.	Life Science	2
7	Living Environment	7.4.13	7.4.13 Explain that white blood cells engulf invaders or produce antibodies that attack invaders or mark the invaders for killing by other white blood cells. Know that the antibodies produced will remain and can fight off subsequent invaders of the same kind.	Life Science	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
7	Living Environment	7.4.14	7.4.14 Explain that the environment may contain dangerous levels of substances that are harmful to human beings. Understand, therefore, that the good health of individuals requires monitoring the soil, air, and water as well as taking steps to keep them safe.	Life Science	1
7	Historical Perspectives	7.6.1	7.6.1 Understand and explain that throughout history, people have created explanations for disease. Note that some held that disease had spiritual causes, but that the most persistent biological theory over the centuries was that illness resulted from an imbalance in the body fluids. Realize that the introduction of germ theory by Louis Pasteur and others in the 19th century led to the modern understanding of how many diseases are caused by microorganisms, such as bacteria, viruses, yeasts, and parasites.	Life Science	0
7	Historical Perspectives	7.6.2	7.6.2 Understand and explain that Louis Pasteur wanted to find out what caused milk and wine to spoil. Note that he demonstrated that spoilage and fermentation occur when microorganisms enter from the air, multiply rapidly, and produce waste products, with some desirable results, such as carbon dioxide in bread dough, and some undesirable, such as acetic acid in wine. Understand that after showing that spoilage could be avoided by keeping germs out or by destroying them with heat, Pasteur investigated animal diseases and showed that microorganisms were involved in many of them. Also note that other investigators later showed that specific kinds of germs caused specific diseases.	Life Science	0
7	Historical Perspectives	7.6.3	7.6.3 Understand and explain that Louis Pasteur found that infection by disease organisms (germs) caused the body to build up an immunity against subsequent infection by the same organisms. Realize that Pasteur then demonstrated more widely what Edward Jenner had shown for smallpox without understanding the underlying mechanism: that it was possible to produce vaccines that would induce the body to build immunity to a disease without actually causing the disease itself.	Life Science	0
7	Historical Perspectives	7.6.4	7.6.4 Understand and describe that changes in health practices have resulted from the acceptance of the germ theory of disease. Realize that before germ theory, illness was treated by appeals to supernatural powers or by trying to adjust body fluids through induced vomiting, bleeding, or purging. Note that the modern approach emphasizes sanitation, the safe handling of food and water, the pasteurization of milk, quarantine, and aseptic surgical techniques to keep germs out of the body; vaccinations to strengthen the body's immune system against subsequent infection by the same kind of microorganisms; and antibiotics and other chemicals and processes to destroy microorganisms.	Life Science	2
7	Physical Setting	7.3.1	7.3.1 Recognize and describe that the sun is a medium-sized star located near the edge of a disk-shaped galaxy of stars and that the universe contains many billions of galaxies and each galaxy contains many billions of stars.	Earth Science	3
7	Physical Setting	7.3.2	7.3.2 Recognize and describe that the sun is many thousands of times closer to the Earth than any other star, allowing light from the sun to reach the Earth in a few minutes. Note that this may be compared to time spans of longer than a year for all other stars.	Earth Science	3
7	Physical Setting	7.3.3	7.3.3 Describe how climates sometimes have changed abruptly in the past as a result of changes in the Earth's crust, such as volcanic eruptions or impacts of huge rocks from space.	Earth Science	2

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
7	Physical Setting	7.3.4	7.3.4 Explain how heat flow and movement of material within the Earth causes earthquakes and volcanic eruptions and creates mountains and ocean basins.	Earth Science	5
7	Physical Setting	7.3.5	7.3.5 Recognize and explain that heat energy carried by ocean currents has a strong influence on climate around the world.	Earth Science	2
7	Physical Setting	7.3.6	7.3.6 Describe how gas and dust from large volcanoes can change the atmosphere.	Earth Science	0
7	Physical Setting	7.3.7	7.3.7 Give examples of some changes in the Earth's surface that are abrupt, such as earthquakes and volcanic eruptions, and some changes that happen very slowly, such as uplift and wearing down of mountains, and the action of glaciers.	Earth Science	4
7	Physical Setting	7.3.8	7.3.8 Describe how sediments of sand and smaller particles, sometimes containing the remains of organisms, are gradually buried and are cemented together by dissolved minerals to form solid rock again.	Earth Science	3
7	Physical Setting	7.3.9	7.3.9 Explain that sedimentary rock, when buried deep enough, may be reformed by pressure and heat, perhaps melting and recrystallizing into different kinds of rock. Describe that these reformed rock layers may be forced up again to become land surface and even mountains, and subsequently erode.	Earth Science	3
7	Physical Setting	7.3.10	7.3.10 Explain how the thousands of layers of sedimentary rock can confirm the long history of the changing surface of the Earth and the changing life forms whose remains are found in successive layers, although the youngest layers are not always found on top, because of folding, breaking, and uplift of layers.	Earth Science	3
7	Physical Setting	7.3.11	7.3.11 Explain that the sun loses energy by emitting light. Note that only a tiny fraction of that light reaches the Earth. Understand that the sun’s energy arrives as light with a wide range of wavelengths, consisting of visible light, infrared, and ultraviolet radiation.	Physical Science	4
7	Physical Setting	7.3.12	7.3.12 Investigate how the temperature and acidity of a solution influences reaction rates, such as those resulting in food spoilage.	Physical Science	3
7	Physical Setting	7.3.13	7.3.13 Explain that many substances dissolve in water. Understand that the presence of these substances often affects the rates of reactions that are occurring in the water as compared to the same reactions occurring in the water in the absence of the substances.	Physical Science	3
7	Physical Setting	7.3.14	7.3.14 Explain that energy in the form of heat is almost always one of the products of an energy transformation, such as in the examples of exploding stars, biological growth, the operation of machines, and the motion of people.	Physical Science	2
7	Physical Setting	7.3.15	7.3.15 Describe how electrical energy can be produced from a variety of energy sources and can be transformed into almost any other form of energy, such as light or heat.	Physical Science	3
7	Physical Setting	7.3.16	7.3.16 Recognize and explain that different ways of obtaining, transforming, and distributing energy have different environmental consequences.	Physical Science	3
7	Physical Setting	7.3.17	7.3.17 Investigate that an unbalanced force, acting on an object, changes its speed or path of motion or both, and know that if the force always acts towards the same center as the object moves, the object’s path may curve into an orbit around the center.	Physical Science	4
7	Physical Setting	7.3.18	7.3.18 Describe that light waves, sound waves, and other waves move at different speeds in different materials.	Physical Science	2
7	Physical Setting	7.3.19	7.3.19 Explain that human eyes respond to a narrow range of wavelengths of the electromagnetic spectrum.	Physical Science	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
7	Physical Setting	7.3.20	7.3.20 Describe that something can be "seen" when light waves emitted or reflected by it enter the eye just as something can be "heard" when sound waves from it enter the ear.	Physical Science	4
7	Nature of Science and Technology	7.1.1	7.1.1 Recognize and explain that when similar investigations give different results, the scientific challenge is to judge whether the differences are trivial or significant, which often takes further studies to decide.	Scientific Inquiry	2
7	Nature of Science and Technology	7.1.2	7.1.2 Explain that what people expect to observe often affects what they actually do observe and provide an example of a solution to this problem.	Scientific Inquiry	1
7	Nature of Science and Technology	7.1.3	7.1.3 Explain why it is important in science to keep honest, clear, and accurate records.	Scientific Inquiry	1
7	Nature of Science and Technology	7.1.4	7.1.4 Describe that different explanations can be given for the same evidence, and it is not always possible to tell which one is correct without further inquiry.	Scientific Inquiry	1
7	Nature of Science and Technology	7.1.5	7.1.5 Identify some important contributions to the advancement of science, mathematics, and technology that have been made by different kinds of people, in different cultures, at different times.	Scientific Inquiry	4
7	Nature of Science and Technology	7.1.6	7.1.6 Provide examples of people who overcame bias and/or limited opportunities in education and employment to excel in the fields of science.	Scientific Inquiry	0
7	Nature of Science and Technology	7.1.7	7.1.7 Explain how engineers, architects, and others who engage in design and technology use scientific knowledge to solve practical problems.	Scientific Inquiry	1
7	Nature of Science and Technology	7.1.8	7.1.8 Explain that technologies often have drawbacks as well as benefits. Consider a technology, such as the use of pesticides, which help some organisms but may hurt others, either deliberately or inadvertently.	Scientific Inquiry	2
7	Nature of Science and Technology	7.1.9	7.1.9 Explain how societies influence what types of technology are developed and used in such fields as agriculture, manufacturing, sanitation, medicine, warfare, transportation, information processing, and communication.	Scientific Inquiry	1
7	Nature of Science and Technology	7.1.10	7.1.10 Identify ways that technology has strongly influenced the course of history and continues to do so.	Scientific Inquiry	1
7	Nature of Science and Technology	7.1.11	7.1.11 Illustrate how numbers can be represented by using sequences of only two symbols, such as 1 and 0 or on and off, and how that affects the storage of information in our society.	Scientific Inquiry	0
7	Scientific Thinking	7.2.1	7.2.1 Find what percentage one number is of another and figure any percentage of any number.	Scientific Inquiry	0
7	Scientific Thinking	7.2.2	7.2.2 Use formulas to calculate the circumferences and areas of rectangles, triangles, and circles, and the volumes of rectangular solids.	Scientific Inquiry	0
7	Scientific Thinking	7.2.3	7.2.3 Decide what degree of precision is adequate, based on the degree of precision of the original data, and round off the result of calculator operations to significant figures that reasonably reflect those of the inputs.	Scientific Inquiry	2
7	Scientific Thinking	7.2.4	7.2.4 Express numbers like 100, 1,000, and 1,000,000 as powers of 10.	Scientific Inquiry	1
7	Scientific Thinking	7.2.5	7.2.5 Estimate probabilities of outcomes in familiar situations, on the basis of history or the number of possible outcomes.	Scientific Inquiry	1
7	Scientific Thinking	7.2.6	7.2.6 Read analog and digital meters on instruments used to make direct measurements of length, volume, weight, elapsed time, rates, or temperatures, and choose appropriate units.	Scientific Inquiry	0
7	Scientific Thinking	7.2.7	7.2.7 Incorporate circle charts, bar and line graphs, diagrams, scatter plots, and symbols into writing, such as lab or research reports, to serve as evidence for claims and/or conclusions.	Scientific Inquiry	3

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
7	Scientific Thinking	7.2.8	7.2.8 Question claims based on vague attributes such as “Leading doctors say...” or on statements made by celebrities or others outside the area of their particular expertise.	Scientific Inquiry	1
7	Mathematical World	7.5.1	7.5.1 Demonstrate how a number line can be extended on the other side of zero to represent negative numbers and give examples of instances where this is useful.	Scientific Inquiry	0
7	Mathematical World	7.5.2	7.5.2 Illustrate how lines can be parallel, perpendicular, or oblique.	Scientific Inquiry	0
7	Mathematical World	7.5.3	7.5.3 Demonstrate how the scale chosen for a graph or drawing determines its interpretation.	Scientific Inquiry	2
7	Mathematical World	7.5.4	7.5.4 Describe that the larger the sample, the more accurately it represents the whole. Understand, however, that any sample can be poorly chosen and this will make it unrepresentative of the whole.	Scientific Inquiry	2
7	Common Themes	7.7.1	7.7.1 Explain that the output from one part of a system, which can include material, energy, or information, can become the input to other parts and this feedback can serve to control what goes on in the system as a whole.	Scientific Inquiry	1
7	Common Themes	7.7.2	7.7.2 Use different models to represent the same thing, noting that the kind of model and its complexity should depend on its purpose.	Scientific Inquiry	0
7	Common Themes	7.7.3	7.7.3 Describe how physical and biological systems tend to change until they reach equilibrium and remain that way unless their surroundings change.	Scientific Inquiry	1
7	Common Themes	7.7.4	7.7.4 Use symbolic equations to show how the quantity of something changes over time or in response to changes in other quantities.	Scientific Inquiry	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
				TOTAL	**112**
				Life Science	**28**
				Earth Science	**28**
				Physical Science	**28**
				Scientific Inquiry	**28**
8	Living Environment	8.4.1	8.4.1 Differentiate between inherited traits, such as hair color or flower color, and acquired skills, such as manners.	Life Science	2
8	Living Environment	8.4.2	8.4.2 Describe that in some organisms, such as yeast or bacteria, all genes come from a single parent, while in those that have sexes, typically half of the genes come from each parent.	Life Science	4
8	Living Environment	8.4.3	8.4.3 Recognize and describe that new varieties of cultivated plants, such as corn and apples, and domestic animals, such as dogs and horses, have resulted from selective breeding for particular traits.	Life Science	3
8	Living Environment	8.4.4	8.4.4 Describe how matter is transferred from one organism to another repeatedly and between organisms and their physical environment.	Life Science	4
8	Living Environment	8.4.5	8.4.5 Explain that energy can be transferred from one form to another in living things.	Life Science	3
8	Living Environment	8.4.6	8.4.6 Describe how animals get their energy from oxidizing their food and releasing some of this energy as heat.	Life Science	3
8	Living Environment	8.4.7	8.4.7 Recognize and explain that small genetic differences between parents and offspring can accumulate in successive generations so that descendants are very different from their ancestors.	Life Science	3
8	Living Environment	8.4.8	8.4.8 Describe how environmental conditions affect the survival of individual organisms and how entire species may prosper in spite of the poor survivability or bad fortune of individuals.	Life Science	3
8	Living Environment	8.4.9	8.4.9 Recognize and describe that fossil evidence is consistent with the idea that human beings evolved from earlier species.	Life Science	3
8	Physical Setting	8.3.1	8.3.1 Explain that large numbers of chunks of rock orbit the sun and some of this rock interacts with the Earth.	Earth Science	2
8	Physical Setting	8.3.2	8.3.2 Explain that the slow movement of material within the Earth results from heat flowing out of the deep interior and the action of gravitational forces on regions of different density.	Earth Science	4
8	Physical Setting	8.3.3	8.3.3 Explain that the solid crust of the Earth, including both the continents and the ocean basins, consists of separate plates that ride on a denser, hot, gradually deformable layer of earth. Understand that the crust sections move very slowly, pressing against one another in some places, pulling apart in other places. Further understand that ocean-floor plates may slide under continental plates, sinking deep into the Earth, and that the surface layers of these plates may fold, forming mountain ranges.	Earth Science	6
8	Physical Setting	8.3.4	8.3.4 Explain that earthquakes often occur along the boundaries between colliding plates, and molten rock from below creates pressure that is released by volcanic eruptions, helping to build up mountains. Understand that under the ocean basins, molten rock may well up between separating plates to create new ocean floor. Further understand that volcanic activity along the ocean floor may form undersea mountains, which can thrust above the ocean's surface to become islands.	Earth Science	6
8	Physical Setting	8.3.5	8.3.5 Explain that everything on or anywhere near the Earth is pulled toward the Earth's center by a gravitational force.	Earth Science	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
8	Physical Setting	8.3.6	8.3.6 Understand and explain that the benefits of the Earth's resources, such as fresh water, air, soil, and trees, are finite and can be reduced by using them wastefully or by deliberately or accidentally destroying them.	Earth Science	6
8	Physical Setting	8.3.7	8.3.7 Explain that the atmosphere and the oceans have a limited capacity to absorb wastes and recycle materials naturally.	Earth Science	4
8	Physical Setting	8.3.8	8.3.8 Explain that all matter is made up of atoms which are far too small to see directly through an optical microscope. Understand that the atoms of any element are similar but are different from atoms of other elements. Further understand that atoms may stick together in well defined molecules or may be packed together in large arrays. Also understand that different arrangements of atoms into groups comprise all substances.	Physical Science	2
8	Physical Setting	8.3.9	8.3.9 Demonstrate, using drawings and models, the movement of atoms in a solid, liquid, and gaseous state. Explain that atoms and molecules are perpetually in motion.	Physical Science	2
8	Physical Setting	8.3.10	8.3.10 Explain that increased temperature means that atoms have a greater average energy of motion and that most gases expand when heated.	Physical Science	2
8	Physical Setting	8.3.11	8.3.11 Describe how groups of elements can be classified based on similar properties, including highly reactive metals, less reactive metals, highly reactive non-metals, less reactive nonmetals, and some almost completely non-reactive gases.	Physical Science	4
8	Physical Setting	8.3.12	8.3.12 Explain that no matter how substances within a closed system interact with one another, or how they combine or break apart, the total mass of the system remains the same. Understand that the atomic theory explains the conservation of matter: if the number of atoms stays the same no matter how they are rearranged, then their total mass stays the same.	Physical Science	2
8	Physical Setting	8.3.13	8.3.13 Explain that energy cannot be created or destroyed but only changed from one form into another.	Physical Science	2
8	Physical Setting	8.3.14	8.3.14 Describe how heat can be transferred through materials by the collision of atoms, or across space by radiation, or if the material is fluid, by convection currents that are set up in it that aid the transfer of heat.	Physical Science	3
8	Physical Setting	8.3.15	8.3.15 Identify different forms of energy that exist in nature.	Physical Science	2
8	Physical Setting	8.3.16	8.3.16 Explain that every object exerts gravitational force on every other object and that the force depends on how much mass the objects have and how far apart they are.	Physical Science	2
8	Physical Setting	8.3.17	8.3.17 Explain that the sun's gravitational pull holds the Earth and other planets in their orbits, just as the planets' gravitational pull keeps their moons in orbit around them.	Physical Science	1
8	Physical Setting	8.3.18	8.3.18 Investigate and explain that electric currents and magnets can exert force on each other.	Physical Science	1
8	Physical Setting	8.3.19	8.3.19 Investigate and compare series and parallel circuits.	Physical Science	0
8	Physical Setting	8.3.20	8.3.20 Compare the differences in power consumption in different electrical devices.	Physical Science	2
8	Historical Perspectives	8.6.1	8.6.1 Understand and explain that Antoine Lavoisier's work was based on the idea that when materials react with each other, many changes can take place, but that in every case the total amount of matter afterward is the same as before. Note that Lavoisier successfully tested the concept of conservation of matter by conducting a series of experiments in which he carefully measured the masses of all the substances involved in various chemical reactions, including the gases used and those given off.	Physical Science	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
8	Historical Perspectives	8.6.2	8.6.2 Understand and describe that the accidental discovery that minerals containing uranium darken photographic film, as light does, led to the discovery of radioactivity.	Physical Science	1
8	Historical Perspectives	8.6.3	8.6.3 Understand that and describe how in their laboratory in France, Marie Curie and her husband, Pierre Curie, isolated two new elements that were the source of most of the radioactivity of the uranium ore. Note that they named one radium because it gave off powerful, invisible rays, and the other polonium in honor of Madame Curie's country of birth, Poland. Also note that Marie Curie was the first scientist ever to win the Nobel prize in two different fields, in physics, shared with her husband, and later in chemistry.	Physical Science	1
8	Historical Perspectives	8.6.4	8.6.4 Describe how the discovery of radioactivity as a source of the Earth's heat energy made it possible to understand how the Earth can be several billion years old and still have a hot interior.	Physical Science	1
8	Nature of Science and Technology	8.1.1	8.1.1 Recognize that and describe how scientific knowledge is subject to modification as new information challenges prevailing theories and as a new theory leads to looking at old observations in a new way.	Scientific Inquiry	2
8	Nature of Science and Technology	8.1.2	8.1.2 Recognize and explain that some matters cannot be examined usefully in a scientific way.	Scientific Inquiry	0
8	Nature of Science and Technology	8.1.3	8.1.3 Recognize and describe that if more than one variable changes at the same time in an experiment, the outcome of the experiment may not be attributable to any one of the variables.	Scientific Inquiry	2
8	Nature of Science and Technology	8.1.4	8.1.4 Explain why accurate record keeping, openness, and replication are essential for maintaining an investigator's credibility with other scientists and society.	Scientific Inquiry	1
8	Nature of Science and Technology	8.1.5	8.1.5 Explain why research involving human subjects requires potential subjects be fully informed about the risks and benefits associated with the research and that they have the right to refuse to participate.	Scientific Inquiry	1
8	Nature of Science and Technology	8.1.6	8.1.6 Identify the constraints that must be taken into account as a new design is developed, such as gravity and the properties of the materials to be used.	Scientific Inquiry	1
8	Nature of Science and Technology	8.1.7	8.1.7 Explain why technology issues are rarely simple and one-sided because contending groups may have different values and priorities.	Scientific Inquiry	1
8	Nature of Science and Technology	8.1.8	8.1.8 Explain that humans help shape the future by generating knowledge, developing new technologies, and communicating ideas to others.	Scientific Inquiry	0
8	Scientific Thinking	8.2.1	8.2.1 Estimate distances and travel times from maps and the actual size of objects from scale drawings.	Scientific Inquiry	0
8	Scientific Thinking	8.2.2	8.2.2 Determine in what unit, such as seconds, meters, grams, etc., an answer should be expressed based on the units of the inputs to the calculation.	Scientific Inquiry	0
8	Scientific Thinking	8.2.3	8.2.3 Use proportional reasoning to solve problems.	Scientific Inquiry	0
8	Scientific Thinking	8.2.4	8.2.4 Use technological devices, such as calculators and computers, to perform calculations.	Scientific Inquiry	0
8	Scientific Thinking	8.2.5	8.2.5 Use computers to store and retrieve information in topical, alphabetical, numerical, and key-word files and create simple files of students' own devising.	Scientific Inquiry	0
8	Scientific Thinking	8.2.6	8.2.6 Write clear, step-by-step instructions (procedural summaries) for conducting investigations, operating something, or following a procedure.	Scientific Inquiry	2
8	Scientific Thinking	8.2.7	8.2.7 Participate in group discussions on scientific topics by restating or summarizing accurately what others have said, asking for clarification or elaboration, and expressing alternative positions.	Scientific Inquiry	0

Grade	Indiana Standard	Indiana Indicator	Indiana Indicator	Acuity IN Diagnostic Form	Diag Blueprint: # Items Total
8	Scientific Thinking	8.2.8	8.2.8 Use tables, charts, and graphs in making arguments and claims in, for example, oral and written presentations about lab or fieldwork.	Scientific Inquiry	4
8	Scientific Thinking	8.2.9	8.2.9 Explain why arguments are invalid if based on very small samples of data, biased samples, or samples for which there was no control sample.	Scientific Inquiry	3
8	Scientific Thinking	8.2.10	8.2.10 Identify and criticize the reasoning in arguments in which fact and opinion are intermingled or the conclusions do not follow logically from the evidence given, an analogy is not apt, no mention is made of whether the control group is very much like the experimental group, or all members of a group are implied to have nearly identical characteristics that differ from those of other groups.	Scientific Inquiry	3
8	Mathematical World	8.5.1	8.5.1 Understand and explain that a number must be written with an appropriate number of significant figures (determined by the measurements from which the number is derived).	Scientific Inquiry	0
8	Mathematical World	8.5.2	8.5.2 Show that an equation containing a variable may be true for just one value of the variable.	Scientific Inquiry	0
8	Mathematical World	8.5.3	8.5.3 Demonstrate that mathematical statements can be used to describe how one quantity changes when another changes.	Scientific Inquiry	1
8	Mathematical World	8.5.4	8.5.4 Illustrate how graphs can show a variety of possible relationships between two variables.	Scientific Inquiry	2
8	Mathematical World	8.5.5	8.5.5 Illustrate that it takes two numbers to locate a point on a map or any other two-dimensional surface.	Scientific Inquiry	0
8	Mathematical World	8.5.6	8.5.6 Explain that a single example can never prove that something is always true, but it could prove that something is not always true.	Scientific Inquiry	1
8	Mathematical World	8.5.7	8.5.7 Recognize and describe the danger of making over-generalizations when inventing a general rule based on a few observations.	Scientific Inquiry	0
8	Mathematical World	8.5.8	8.5.8 Explain how estimates can be based on data from similar conditions in the past or on the assumption that all the possibilities are known.	Scientific Inquiry	0
8	Mathematical World	8.5.9	8.5.9 Compare the mean, median, and mode of a data set.	Scientific Inquiry	3
8	Mathematical World	8.5.10	8.5.10 Explain how the comparison of data from two groups involves comparing both their middles and the spreads.	Scientific Inquiry	0
8	Common Themes	8.7.1	8.7.1 Explain that a system usually has some properties that are different from those of its parts but appear because of the interaction of those parts.	Scientific Inquiry	0
8	Common Themes	8.7.2	8.7.2 Explain that even in some very simple systems, it may not always be possible to predict accurately the result of changing some part or connection.	Scientific Inquiry	0
8	Common Themes	8.7.3	8.7.3 Use technology to assist in graphing and with simulations that compute and display results of changing factors in models.	Scientific Inquiry	0
8	Common Themes	8.7.4	8.7.4 Explain that as the complexity of any system increases, gaining an understanding of it depends on summaries, such as averages and ranges, and on descriptions of typical examples of that system.	Scientific Inquiry	0
8	Common Themes	8.7.5	8.7.5 Observe and describe that a system may stay the same because nothing is happening or because things are happening that counteract one another.	Scientific Inquiry	1
8	Common Themes	8.7.6	8.7.6 Recognize that and describe how symmetry may determine properties of many objects, such as molecules, crystals, organisms, and designed structures.	Scientific Inquiry	0
8	Common Themes	8.7.7	8.7.7 Illustrate how things such as seasons or body temperature occur in cycles.	Scientific Inquiry	0